



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

52

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/991,219      | 11/16/2001  | Manabu Kitamura      | 16869S-038000US     | 3936             |

20350 7590 05/02/2005

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

|          |
|----------|
| EXAMINER |
|----------|

LIEN, TAN

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2141

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

09/991,219

Applicant(s)

KITAMURA ET AL.

Examiner

Tan Lien

Art Unit

2141

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 11 April 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: of the rejection under 35 U.S.C. 103(a) as being unpatentable over Ofek (US Patent 5,680,640) in view of Fiacco et al (US Patent 6,098,125).  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.



## DETAILED ACTION

### *Response to Amendment*

Applicant's arguments filed 4/11/05 have been fully reconsidered but they are not persuasive.

In the Remarks, Applicant argued that

(a) Claim 19 is directed to storage server that provides virtual storage. Claim 19 recites "a first communication interface coupled to a first network switch to receive a data access request from one or more hosts that are couple to the first switch; a second communication interface coupled to a second network switch to communicate with first and second storage subsvstems including first and second storage areas, respectively, to store data associated with the hosts. . ."

The claim recites network switches, and the first and second subsystems are coupled to the storage server via one or more networks. That is, the first and second storage subsystems are remote and distinct devices from the storage server.

As to point (a), Ofek does disclose storage subsystems (FIG. 1, ref. 14 and 16). Claim 19 says nothing about being remote and distinct. Ofek discloses a first communication interface coupled to a first network to receive a data access request from one or more hosts (FIG. 1, ref. 28 and col. 2, lines 18-25); a second communication interface (FIG. 1, ref. 20a and 20b) coupled to a second network

to communicate with first (FIG. 1, ref. 14) and second storage (FIG. 1, ref. 16) subsystems including first and second storage areas, respectively, to store data associated with the hosts (FIG. 1, ref. 14, 16, and 17a-n and col. 4, lines 13-17; wherein the devices are in a network environment, hence, each device is connected to each other via communication interfaces).

(b) Claim 19 recites "a virtual device driver component that is operable to present a virtual storage area to the hosts, the virtual storage area being mapped to the first and second storage areas of the first and second storage subsystems. . ."

That is, the storage server provides virtual storage areas that are mapped to physical storage locations in at least two remote storage subsystems. Ofek does not disclose such a virtualized system.

As to point (b), Ofek discloses a virtual device driver component that is operable to present a virtual storage area to the hosts, the virtual storage area being mapped (FIG. 1, ref. 24) to the first and second storage areas of the first and second storage subsystems (col. 6, lines 18-36; wherein the virtual device driver component is the component that makes the virtual storage devices perform, completely transparent to the hosts, a "background" data migration process using the data map to check data have been migrated and which is still to be migrated).

(c) Claim 19 recites, "wherein the storage server is configured to change mapping of the first location in the virtual storage area to a third location in the

second storage area in connection with a data migration operation." That is, the storage server is configured to change the mapping of the first location, which is a virtual area, from the second location in the first storage subsystem to the third location in the second storage subsystem as part of the data migration, e.g., once the data migration has been completed. In other words, the virtual storage is provided even after the data migration has been completed. Ofek does not teach this.

As to point (c), Ofek teaches the storage server is configured to change mapping of the first location in the virtual storage area to a third location in the second storage area (col. 6, lines 37-45; wherein the map/table is configured to change mapping of the old storage location to the new storage location) in connection with a data migration operation (col. 2, lines 40-55 and col. 6, lines 17-25; wherein the data access read/write are handled while the migration is running as the "background" process).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tan Lien whose telephone number is (571) 272-


3883. The examiner can normally be reached on Monday-Thursday from 8:30am to 6pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for this Group is (571) 273-3883.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [tan.lien@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

  
RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER